



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,308	11/26/2003	Mathew D. Wall	000310-165	1423
7590		09/07/2005	EXAMINER	
Seymour Levine		ARTHUR JEANGLAUDE, GERTRUDE		
2C Chateaux Circle		ART UNIT		
Scarsdale, NY 10583		PAPER NUMBER		
		3661		

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

*JK*

**Office Action Summary**

Application No.

10/724,308

Applicant(s)

WALL, MATHEW D.

Examiner

Gertrude Arthur-Jeanglaude

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7,8,10,16,17,20 and 23 is/are rejected.
- 7) ☒ Claim(s) 6,9,11-15,18,19,21,22 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Claims 1, 3-24 are pending in this application for examination.

#### ***Drawings***

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because Applicant has many drawings submission that create confusion. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Figures 1, 3, 4, 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Specification***

The disclosure is objected to because of the following informalities: Applicant's representative is required to submit a substitute specification with all the changes as a

Art Unit: 3661

whole document. Also, a marked up copy of the whole specification is required to show where the changes are made. Appropriate correction is required.

In page 3, line 20, apparently the word "with" should be - - width - -.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5, 7-8, 10, 16-17, 20, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicant's admitted prior art in the background of the invention.

As to claims 1, 3, 8, 10, 17, admitted prior art in the background of the invention discloses a method for generating a moving haven boundary along a voyage plan comprising the steps of creating boundary rectangles having edges at the width and lengths equal to lengths of strait line portions of the voyage plan, the boundary comprising edges; and determining pie shaped areas between rectangles at waypoints of the voyage plan, the pie shaped areas having arcs between edges of rectangles on either side of the waypoints (See Fig. 1, pages 1- 3). The admitted prior art does not specifically disclose establishing a width, centered on the voyage plan, for the boundary. However, it discloses the construct of boundary directly from the voyage plan geometry (See page 3 of admitted prior art in the background of the invention) wherein

one of ordinary skill in the art at the time of the invention would establish a width, centered on the voyage plan, for the boundary for the marine navigation to manage the voyage of marine vessels.

As to claims 4-5, the admitted prior art discloses the determining pie shaped (page 2) areas step includes the step of forming arcs, having centers at waypoints of the at least one waypoint, between a vertex of a rectangle terminating at a given waypoint and a vertex of a rectangle originating at the given waypoint (See background of the invention page 3, lines 4-10); and further discloses the step of approximating the arcs by a series of line segments (See admitted prior art background of the invention, page 3, lines 19-25).

As to claims 7, 16, the background of the invention discloses the step of generating a buffer boundary at a selected distance from the boundary (See page 1, lines 22-25).

As to claim 20, the admitted prior art in the background of the invention discloses an apparatus for providing a moving haven boundary along a voyage plan comprising generator means for generating a polygonal line having line segments and waypoints of the voyage plan; rectangle means coupled to the generator means for establishing rectangle line segments of rectangles along respective segments of the polygonal line, each rectangle having a width equal to a preselected width of the moving haven and a length equal to its respective line segment length; arc means coupled to the rectangle means for providing an arc between a trailing edge of a first rectangle and a leading edge of a second rectangle at a selected waypoint, the leading and trailing edges

Art Unit: 3661

intersecting at the selected waypoint, the arc being represented by a series of arc line segments and formed about an obtuse angle formed by the polygonal line at the selected waypoint; and boundary means coupled to the rectangle means and the arc means for generating the moving haven boundary (See page 1, lines 20-25; page 2, lines 1-19; page 3, lines 4-23).

As to claim 23, the admitted prior art in the background of the invention discloses a buffer rectangle means coupled to the boundary means for generating rectangles about the boundary polygonal line; buffer arc means coupled to the buffer rectangle means for generating arcs between end edges of the first rectangles and leading edges of second rectangles; and buffer polygonal line means coupled to the buffer rectangle means and the buffer arc means for utilizing the rectangles and the arcs to establish a buffer polygonal line within the moving haven boundary (See page 3, lines 4-25).

### ***Allowable Subject Matter***

Claims 6, 9, 11-15, 18-19, 21-22, 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art does not specifically disclose forming buffer arcs step includes establishing a first vector between a vertex of an end edge of a selected buffer rectangle and a point at which the end edge intersects the moving haven boundary; establishing a second vector between a vertex of a leading edge of a buffer rectangle next adjacent to the selected buffer rectangle and a point at which the leading edge of

Art Unit: 3661

the next adjacent rectangle as an end point of the second vector; determining angular distance between the first and second vectors; rotating the first vector by a selected angle to establish a third vector; noting an end point of the third vector; repeating rotations of a vector established by a previous rotation by the selected angle until the angular distance between the first and second vectors has been traversed.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jones et al. (U.S. Patent No. 5,986,575)

Jones et al. (U.S. Patent No. 6,243,026)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gertrude Arthur-Jeanglaude whose telephone number is (571) 272-6954. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GAJ



September 2, 2005

*Gertrude A. Jeanglaude*  
GERTRUDE A. JEANGLAUE  
PRIMARY EXAMINER